



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,440	09/25/2003	Anna Mansson	1517-1027-1	4237

466 7590 07/27/2006

YOUNG & THOMPSON
745 SOUTH 23RD STREET
2ND FLOOR
ARLINGTON, VA 22202

EXAMINER

MUSSER, BARBARA J

ART UNIT	PAPER NUMBER
----------	--------------

1733

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

8

Office Action Summary**Application No.**

10/669,440

Applicant(s)

MANSSON ET AL.

Examiner

Barbara J. Musser

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 28 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28 is/are allowed.
- 6) ☒ Claim(s) 1-10, 12 and 29 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4-8, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoeft et al.(U.S. Patent 6,551,691) in view of Thomas(U.S. Patent 3,650,882).

Hoeft et al. discloses forming a multi-ply web by pressing two webs(2,4) together at raised locations, applying adhesive to the outside of one of the webs at spaced locations using a patterned adhesive roller, applying a third web(3) to the first two, and bonding all three together via the adhesive at the raised location the first two webs are contacting at.(Figure 2; Col. 7, ll. 60-64) The reference does not disclose applying adhesive to one of the first two webs to join them together prior to application of the third web, though it does indicate that adhesive can be applied to both sides of the center web to bond the laminate together rather than using one adhesive roller.(Col. 8, ll. 8-10) Thomas discloses forming a multi-layer laminate by applying adhesive to two webs and then joining all three webs together so the adhesive droplets are opposite each other.(Figure 7) It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an additional patterned adhesive applicator in Hoeft et al. to bond the first two webs(2,4) together before they contact the third web(3)

Art Unit: 1733

since Hoeft et al. indicates that adhesive can be applied to both sides of the center web to bond all three layers together indicating the use of multiple glue application locations (Col. 8, ll. 8-10) and since Thomas discloses how adhesive can be applied to two different webs to both three webs together showing this is an obvious alternative in the art. (Figures 1 and 7) Since the modification of Hoeft et al. still forms the same final product, one in the art would understand that the adhesive from the two adhesive applicators would be aligned.

Regarding claim 2, Hoeft et al. discloses only one lamination roller (22) after the second glue transfer roll since roll (20) is not a lamination roller.

Regarding claim 5, Hoeft et al. discloses that webs 2 and 3 are patterned in a three-dimensional pattern prior to lamination. (Figure 2)

Regarding claim 6, substantially all the adhesive sites on the third web are lined up with those of the joining the first and second webs since Hoeft et al. discloses bonding the webs together only at the points where all three webs contact each other. (Figure 1)

Regarding claims 7 and 8, these appear to be well-known and conventional ranges for the size of the adhesive drop and the number of adhesive locations, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to use any well-known and conventional ranges for the size of the adhesive drops and the number of drops in an area since they are well-known and conventional. It is noted that the upper range for the size of the drops is over 1 centimeter across, clearly

encompassing the well-known drop sizes of multi-layer webs since such conventional materials rarely have drop sizes that large.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above, and further in view of Kudo et al.(U.S. Patent 6,802,932).

The references cited above do not disclose a lamination roller being associated with each adhesive transfer roller. Kudo et al. discloses that when bonding multiple layers together, it is known in the art to apply the adhesive to a layer, laminate another layer to it, and then apply adhesive to the combination and laminate all the layers together.(Figure 3) It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a lamination roller after the adhesive application in the combination of Hoeft et al. and Thomas since it is known in the art to laminate layers together using a lamination roller after each layer is added as shown for example by Kudo et al.(Figure 3)

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above, and further in view of Schulz(U.S. Patent 4,325,768).

The references cited above do not disclose an additional embossing step after lamination of the embossed webs of Hoeft et al. Schulz discloses embossing a multi-layer embossed laminate after lamination of the webs.(Figure 1) This lamination improves softness since it combines closely spaced embossments like those of Hoeft et al. with less closely spaced spot embossments.(Col. 1, ll. 51-56) It would have been

obvious to one of ordinary skill in the art at the time the invention was made to emboss the multi-layer web after lamination since this would combine the closely spaced embossments of Hoeft et al. and Thomas with relatively large further apart embossments improving the softness and bulk of the web.(Col. 1, ll. 51-56)

5. Claims 1, 4-, 5, 7-10, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laurent(U.S. Patent 5,736,223) in view of Hoeft et al.

Laurent discloses applying glue(E1) to a first web(1), bringing the first web into contact with a second web(2), applying glue(E2) to a third web(3), and bringing the third web into contact with the combined first and second webs so that the glue sites are aligned.(Figure 2) The reference does not disclose applying the adhesive to the combined first and second web rather than to the third web. However, this is an obvious alternative to applying it to the third web since it is well-known and conventional in the bonding arts that adhesive can be applied to either of the two materials being joined. The reference also does not disclose using patterned adhesive applicators. Hoeft et al. discloses that when making the same type of materials as Laurent, it is known to use a patterned adhesive applicator to that adhesive can be applied to only part of the raised regions to improve product flexibility.(Col. 7, ll. 60-65) It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the adhesive to the combined first and second webs rather than to the third web since it is well-known and conventional in the bonding arts that the adhesive can be applied to either of the two materials being joined and therefore is an obvious alternative

to applying it to the third web and to use patterned adhesive applicators since Hoeft et al. discloses this can improve product flexibility.(Col. 7, ll. 60-65)

Regarding claim 5, Laurent discloses that webs 2 and 3 are patterned in a three-dimensional pattern prior to lamination.(Figure 2)

Regarding claims 7 and 8, these appear to be well-known and conventional ranges for the size of the adhesive drop and the number of adhesive locations, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to use any well-known and conventional ranges for the size of the adhesive drops and the number of drops in an area since they are well-known and conventional. It is noted that the upper range for the size of the drops is over 1 centimeter across, clearly encompassing the well-known drop sizes of multi-layer webs since such conventional materials rarely have drop sizes that large.

Regarding claim 9, since the adhesive can be applied to only part of the embossed pattern and that this improves flexibility, one in the art would appreciate that this would suggest the adhesive patterns are not completely aligned as complete alignment would not appear to improve flexibility.

Regarding claim 10, since the glue application is regular(Figure 2), a pattern of some sort is formed.

Response to Arguments

6. Applicant's arguments filed 5/9/06 have been fully considered but they are not persuasive.

It is noted that claim 1 does not require the second glue roll to apply adhesive to a third web as applicant indicates on page 2 of the arguments, but rather applies the adhesive to either the first or second webs.

Regarding applicant's argument that Hoeft teaches away from using two adhesive applicators, Hoeft suggest applying adhesive to both sides of the central web. One reading this would appreciate that since Hoeft does not disclose this adhesive application occurs simultaneously, that the two adhesive applications can occur sequentially. One in the art reading the reference as a whole would appreciate that the adhesive on either side of the center ply could be applied either sequentially or simultaneously since the reference is silent as to the order of application. "Although a reference that teaches away is a significant factor to be considered in determining unobviousness, the nature of the teaching is highly relevant, and must be weighed in substance."(In re Gurley (CA FC) 31 USPQ2d 1130) A teaching that a process is comparatively complex is not an absolute teaching against a process. Hoeft suggests other reasons the invention is superior to the prior art including the tip-to-tip bonding of the prior art.(Col. 2, ll. 54-55)

Regarding applicant's argument that reconfiguring Hoeft to place an additional gluing station adjacent roller 20 would place glue to bond web 3 to web 4, and the first adhesive roller already applies adhesive to bond web 3 to web 4, examiner suggested that an obvious modification would be to bring the web 4 in above the adhesive rollers rather than below and provides an additional glue application station to apply glue to either the web(3) on the roller(20) or to the center web(4) would not substantially modify

the device since none of the rollers shown in the device would need to be moved. This would effectively apply the adhesive from the first adhesive applicator(16) to web 2, so that it would bond web 4 to web 2. Only the expected results would be achieved in applying the adhesive in two separate steps, before and after joining of two of the webs versus applying the adhesive in one step before joining any of the webs.

Regarding applicant's argument that modifying Hoeft would render it unsatisfactory for its intended purpose of using a facility designed for manufacturing a conventional two ply paper without requiring substantial changes, Hoeft discloses that a conventional device can be modified by spraying adhesive on both sides of the center web, clearly suggesting replacing adhesive applicator(15). This in fact would constitute a more substantial change than simply providing an additional adhesive applicator and re-routing one web(4). The addition of two spraying stations would be a substantial change, yet it is clearly also within the scope of the reference. Therefore, the addition of one adhesive station and the re-routing of the center web would not appear to be a greater change to the device than what is already contemplated by the reference.

Regarding applicant's argument that Thomas does not teach joining the first and second web together and then joining the third to them, Hoeft teaches such though Hoeft does not disclose using adhesive to join the first and second webs.

Regarding applicant's argument that Thomas does not teach the adhesive on one side of a web being in alignment with the adhesive on the other side of the web, Figure 7 in combination with Figure 1 and Figure 3 clearly show the embossments and therefore the adhesive being in alignment. While Figure 7 shows adhesive on only

some of the embossments, the reference discloses that the web in Figure 3 is formed by the device of Figure 1 (Col. 2, ll. 10-18, 42-52) and that Figure 7 is a device very similar to that of Figure 1 except that adhesive is only applied to some of the embossments, indicating that in Figure 1, it is applied to all of the embossments.

Thomas shows in Figure 8A that when the adhesive is only between two of the webs, only those two webs are bonded. Therefore, in Figure 3 where all the webs are bonded together, there would be adhesive between the first and second webs and between the second and third webs. Since this is formed by the device of Figure 1, which is shown expanded in Figure 7, one in the art would understand that the glue patterns would be substantially aligned to bond all three webs together.

Allowable Subject Matter

7. Claim 28 is allowed.
8. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. The following is a statement of reasons for the indication of allowable subject matter: regarding claim 11, the prior art of record does not teach or fairly suggest the two adhesives being applied having different chemical compositions or physical properties. Regarding claim 28, the prior art of record does not teach or fairly suggest applying adhesive to unembossed web and joining them together in the order required by the claim.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara J. Musser whose telephone number is (571) 272-1222. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571)-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



BJM



**SAM CHUAN YAO
PRIMARY EXAMINER**